Isodecyl Benzoate – Comments of Environmental Defense

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Environmental Defense appreciates this opportunity to submit comments on the robust summary/test plan for Isodecyl Benzoate.

The test plan on isodecyl benzoate submitted by Velsicol Corporation is objective and well organized and written. It represents a good example of a test plan submission and we appreciate the opportunity to review it. Isodecyl benzoate is used as in water-based paint and as a secondary plasticizer in PVC.

Isodecyl benzoate appears to be relatively non-biodegradable and it possesses a high degree of acute toxicity to Daphnia magna but the acute toxicity to rainbow trout is at least an order of magnitude less. Although, as the sponsor points out, the sensitivity of rainbow trout coupled with the apparent lack of biodegradation raises concern, we agree that no additional testing is needed to fulfill HPV requirements. However, it would be useful to have data on the breakdown products of isodecyl benzoate in the environment as well as the metabolic pattern in sensitive and resistant aquatic species. This information would help identify those situations where isodecyl benzoate might pose a threat to the environment. In this regard, we agree with the proposal to conduct photodegradation and water stability studies on isodecyl benzoate.
We agree that the existing studies on acute toxicity, repeated dose, genetic toxicity, and developmental toxicity are adequate to fulfill the requirements of the HPV program. These studies were well-conducted and they included a neurodevelopment assessment which revealed that relatively high doses (1000 mg/kg) caused behavioral changes in rats. Lower doses caused some liver and kidney toxicity.

The sponsor concludes that the repeated dose study coupled with an adequate developmental toxicity study negate the need for a reproductive function study. Although we agree that that the repeated dose study did not show histological changes in reproductive tissues, this should not
be considered a substitute for a reproductive function study. Therefore, we recommend that the sponsor conduct an appropriate reproductive toxicity study on isodecyl benzoate.

Thank you for this opportunity to comment.

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